

## **Personal Values, Beliefs, and Ecological Risk Perception**

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A mail survey on ecological risk perception was administered in the summer of 2002 to the lay public and to risk professionals to test the explanatory power of the Value-Belief-Norm (VBN) activation theory to risk perception. Respondents were questioned about their personal values, spiritual beliefs, and worldviews and then asked to rank 24 ecological risk items. Results show that the lay public is more concerned about low-probability, high-consequence risks, whereas the other groups are more concerned about risks that pose long-term impacts and produce ecosystem-level effects. The most consistent predictor of the risk rankings is belief in the New Ecological Paradigm (NEP). The more an individual is an adherent to the NEP, the greater their concern for the 24 risk items. Schwartz's altruism is also a strong predictor of risk rankings, with altruistic respondents more concerned about the risk items. The NEP and Schwartz's altruism explain from 23% to 45% of the variance in the risk rankings. Altruism also exerts an indirect effect by influencing the respondents' NEP scale. Spiritual holism shows a direct positive effect on the respondents' concern for risk items and an indirect positive effect on the respondents' NEP Scale. The other religious variables tested do not show a consistent pattern in predicting risk perception, although religious fundamentalists are less concerned about the risk items and are less likely to be adherents to the NEP. Overall, religious beliefs account for less than 6% of the variance in risk rankings. While not exerting as strong an influence, social structural variables show an effect on risk perception. Lay public females are more concerned about global and chemical risks, and female risk managers are more concerned about water pollutants. The more educated and financially well off the individual, the less concerned they are about the 24 risk items. Ethnicity has no effect on the risk scales, but Caucasians tend to have higher NEP scores. Risk assessors who are Democrats are more concerned about these risk items and are more likely to have a higher NEP score. These results reveal that the VBN theory is a plausible explanation for the differences measured in the respondents' perception of ecological risk. Understanding how the various risk assessment participants perceive of risk is critical in implementing risk management decisions and demonstrates the importance of problem formulation in assessing ecological risks.